The purpose of this dissertation is to demonstrate a new empirical and systemic geopolitical approach to the study of the ongoing territorial dispute in the Arctic resulting from the desire of two nation states, Denmark and Russia, to extend their own northernmost limits of the Exclusive Economic Zone to the central part of the Arctic Ocean. This approach combines geographic, legal and political analytical perspectives with quantitative research design to produce an inter-disciplinary study. Empirical evidence on the long-term socio-geographic development in the region (1993-2013) is provided together with information on particular territorial gains and losses for all decision-makers that arise in a number of potential scenarios (options). Variation in each decision-maker’s aggregate national socio-geographic resource, as implied by particular territorial modifications in the central part of the Arctic Ocean, serves as a basis for derivation of nontrivial payoffs on each option in the dispute. These payoffs are introduced into a three-player graph model for conflict resolution (Denmark, Russia, and the World) and stable dispute solutions are suggested on the basis of different combinations of decision-makers’ strategies, whose optimality is evaluated as well. Finally, alternative scenarios of future strategic developments in the region are suggested on the basis of coalition analysis, including the conditions under which their realization appears to be the most probable.